

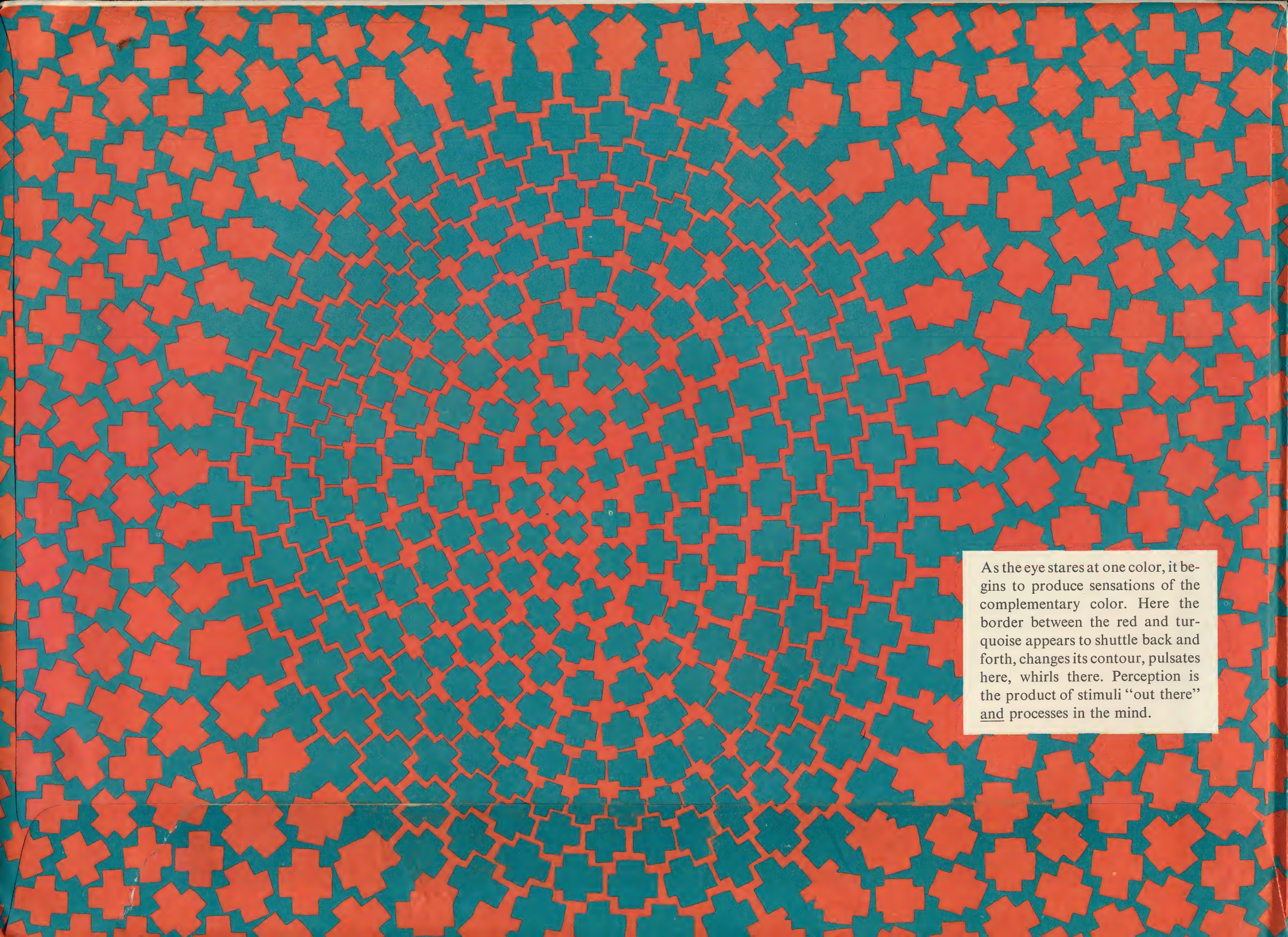
TIME
LIFE
BOOKS



*Explore the
Wonders of
Your own
Intelligence in*
THE MIND
*A Fascinating
Volume from
LIFE SCIENCE LIBRARY*

BLK/RT
U.S. POSTAGE
PAID
AMITYVILLE
NEW YORK
PERMIT NO. 5000

3901
TED NELSON
BOX 1546
POUGHKEPSIE NY 12603



As the eye stares at one color, it begins to produce sensations of the complementary color. Here the border between the red and turquoise appears to shuttle back and forth, changes its contour, pulsates here, whirls there. Perception is the product of stimuli "out there" and processes in the mind.



You are invited to examine
THE MIND
-- a revealing, important,
colorfully illustrated book --
entirely free for ten days

As you read this sentence, the
fastest, most complex processes
known to man are occurring in
your brain: perception, thinking,
memory, learning.

In the known universe, only man
can perform these intricate pro-
cesses.

Only you can read this letter.

To learn more about these pro-
cesses -- and how they influence
your life -- please read on.

Dear Reader:

The mind has always been a puzzle -- impenetrable and mysterious
as the universe itself.

What is consciousness? What is sensation? How do we store memory?
Feel love, anger, fright? How does the network called the nervous
system function?

Today, as science embarks on the first explorations of outer space,
it also probes deeply into the universe of the mind to understand some
of its secrets.

What happens when the mind breaks down? What is anxiety?
Depression? How does psychoanalysis bring about changes
in personality? What about tranquilizers, drugs such as
LSD and psilocybin? How effective are teaching machines?
Will computers be able to think and feel as man does?

To present science's best answers to these questions, the editors
of TIME-LIFE BOOKS announce publication of THE MIND -- a remarkable

volume in the Life Science Library -- which explains much about how you perceive, think, and respond to your environment, much about how and why you feel emotions, remember and learn, how you reason and decide.

Two thousand years ago Seneca said: "Man is an animal who thinks." Today scientists ask: "What is thinking?"

THE MIND offers a synthesis of thinking from many areas of science. In its 200 informative, entertaining, and readable pages you discover what is known, what is about to be known, what is still unknown and perplexing scientists.

All the answers haven't been discovered, of course. But the latest available answers are now yours in readable, understandable form: THE MIND, the introductory volume in a remarkable series called the Life Science Library.

Here is the history of man's ideas about his mind: Theories and discoveries of philosophers, physicians, teachers, biologists and neurologists. . . from Plato to today, each has added a new notch to our knowledge. . . William James and Freud, each has added dimension and depth to our understanding.

You follow the network of man's nervous system. . . from the grey knot atop the skull with its 10 billion inter-connecting nerve cells through peripheral systems, two-lane highways that carry sense data from fingertips, through the muscles, muscles to the brain; motor nerves which carry the brain's orders to muscles and organs.

You encounter the problems of "consciousness" and "perception" -- most challenging of all the unknowns. Why do we so often see only what we expect to see? How do our nerve activities produce such an astonishing variety of effects -- from dreaming, to talking, to writing? (A man may read a book with his eyes, while a blind man reads the same book with his fingers. Both perceive the same meaningful words. How?) Scientists are studying the complicated subject of perception.

You see the human mind in disarray, mentally ill, a state once treated with appalling cruelty, subjected to fiendish "cures," now given humane therapy. You encounter the psychotic's world of delusion, hallucinations, exaggerated emotions, garbled speech and thought.

You grasp the complexities of the Freudian doctrine, and meet the great genius, Sigmund Freud, whose theory of the unconscious mind influenced so much contemporary thought about man's emotional life.

You share the experiences of those experimenting with hallucinogenic drugs -- LSD, for example, which produces

vivid but disconnected sensations and visions (you "hear" sound as color, you "see" it as ribbons drifting across the room).

You are introduced to extraordinary new electrical and chemical techniques permitting scientists to probe deep within the brain. Neurosurgeon Wilder Penfield, treating epileptics, found that when their memory was jogged with ESB (electrical stimulation of the brain) treatment, they suddenly recalled long forgotten episodes out of their pasts.

And these are only suggestions of the fascinating, stimulating, revealing topics you'll experience when you examine and explore THE MIND. I think you'll find it a remarkable index to your own personality and to those of your friends.

If you possess the "sense of excitement about discovery" -- Dr. Jerome Bruner of Harvard calls it the most important ingredient of learning -- you will accept my invitation to read THE MIND and take these adventures in scientific discovery. I have reserved a copy in your name for free examination.

THE MIND, of course, is just one of the books in this uncommon series. You could say that the Life Science Library had its start years ago in LIFE magazine's editorial offices. Actually, it started eons ago with the genesis of the universe. And the story the Library tells is still unfolding. It is the story of MATHEMATICS, ENERGY, MACHINES, THE CELL, THE BODY and other topics. . .presented in calm, authoritative and orderly fashion. . .explained in detail, illustrated in profusion, easy to read.

Who else is better equipped to present such a basic. . .such a fantastic story than resourceful and precise Editors of TIME-LIFE BOOKS. And it is their aim in this series to present the entire and sometimes complex world of science in a reasoned, understandable manner. The volumes are clear and concise enough for anyone who has an interest in the subject to read -- no matter how young. And they are authoritative and detailed enough for even the most sophisticated amateur scientists to read and enjoy.

The children, whose education today is necessarily science-oriented, will profit from having these exceptional books available in their homes. And I think you'll find they will read these books independent of any classroom assignment. They are that readable.

But see for yourself. THE MIND (like all Library volumes) is sent to you free for ten days to use and enjoy.

There can be no more appropriate book to introduce you to the wonders and joys of science than THE MIND. Its subject is where all understanding begins. . .and science is another name for understanding. How man alone, among life on earth, reasons, remembers, imagines, and invents, makes

an engrossing and worthwhile chronicle. Join us on this wonderful journey.

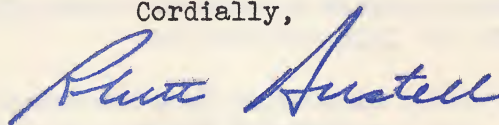
It's an inexpensive journey. You pay only if you decide to keep the volume, and then the price is just \$3.95 (plus delivery). These books are available only from TIME-LIFE BOOKS, so if the temptation is there, I suggest you act on it today -- especially with an on-approval escape clause.

Just check the enclosed Reservation Card and put it in the mail. It obligates you in no way to purchase this, or any other volume in the series. Only to examine THE MIND. And you can cancel anytime.

The card merely tells us that you want to examine this book at your own leisure. Only after you decide you want to own THE MIND and add it to your book collection, do you remit the low price of only \$3.95 (plus postage and handling).

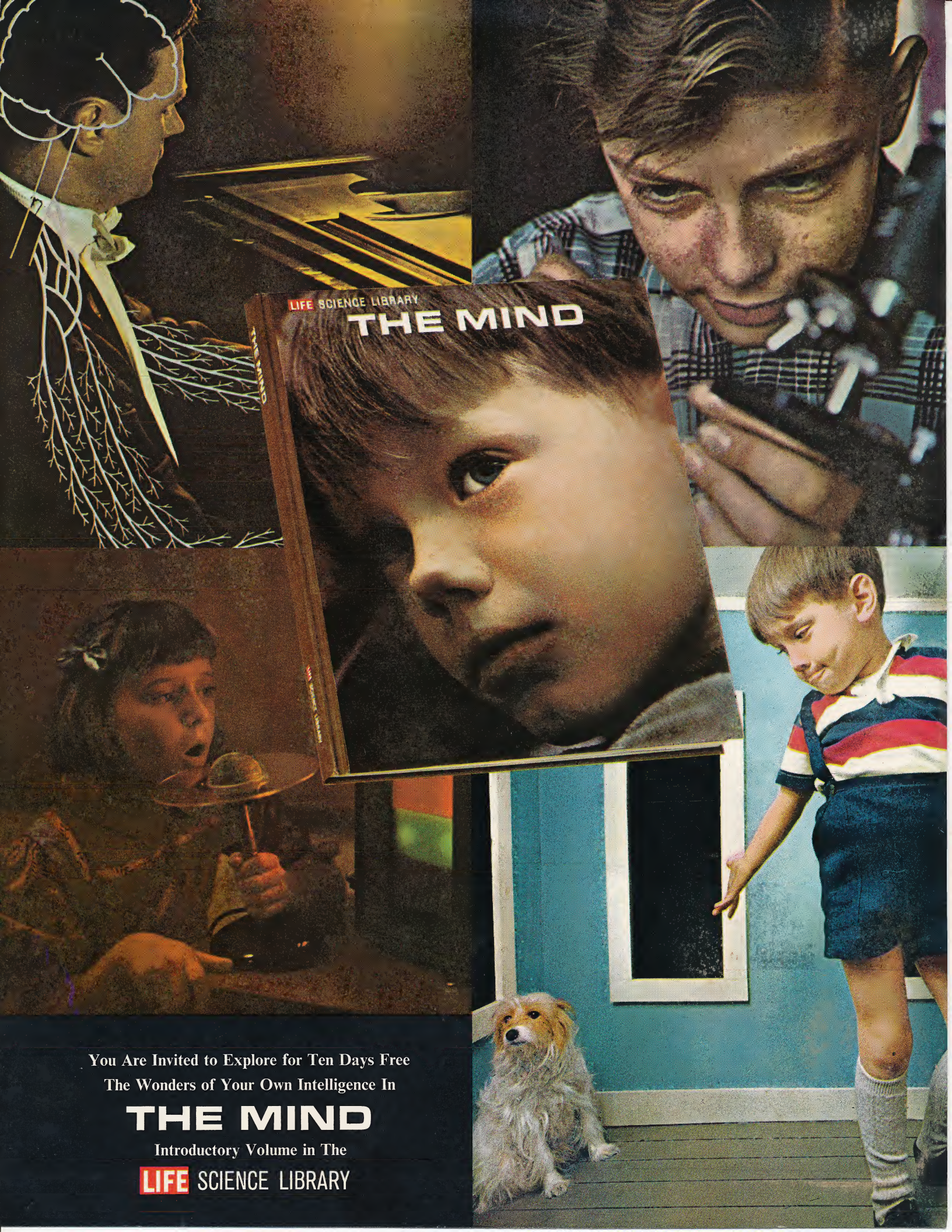
Just mail the card today please. You will be glad you did.

Cordially,



Rhett Austell
Publisher

RA/LSM



You Are Invited to Explore for Ten Days Free
The Wonders of Your Own Intelligence In

THE MIND

Introductory Volume in The

LIFE SCIENCE LIBRARY

How and What We Learn?

"LET US SUPPOSE THE MIND TO BE, as we say, white paper void of all characters, without any ideas. How comes it to be furnished? Whence comes it by that vast store which the busy and boundless fancy of man has painted on it with an almost endless variety? Whence has it all the materials of reason and knowledge?"

In short, how do we learn? The question was propounded three centuries ago by England's great John Locke, and it remains as, indeed, the question has assumed a new decade, as the irresistible forward sweep of the startling new demands upon the capacity of that our inventory of formal knowledge what is perhaps more challenging physical and cultural environment that would have been inconceivable even a few years ago. There are new courses, new ideas, new houses, new houses. Thus there is ever to learn. Writing the end. —Le this or

SILENT SYMBOLISM

The cartoon drawing below was made by a schizophrenic in his twenties so withdrawn that he could not speak a word. The pictures which make up the female figure symbols for the female suggest that the youth was suffering from an abnormal attachment to his mother.



TERROR IN DISGUISE

Drawn by a Balkan peasant with delusions that witches, bears and white mice were threatening him the vivid festival scene above is first seems to resemble a simple folk art. The figure with a tail (right) is playing upon an element that is actually a small, distorted child.

PORTRAIT OF TORMENT

The Father (left) was painted by a girl, a young girl haunted by sexual yearnings for her father. On the calm right side her torment is repressed but on the left side her torment is shown (that father symbol) appears among the sinister arabesques that pour out of the heart.

The Imagery of Schizophrenia

The art of schizophrenia is extremely varied in form, for there are many different forms that schizophrenia can take, from morbid apathy to violent outbursts and bizarre hallucinations. In essence, the schizophrenic mind draws in upon itself, creating private fantasies for a threatening real world. Bizarre, threatening, real world; he lives in a vulnerable world; he lives in a world of nightmares of images, of thoughts, of thoughts, of thoughts out in his art. When he paints, he attempts to paint, he attempts to paint, he attempts to paint.

THE MIND measures 8½ x 11 inches (the size of this folded brochure). It contains 200 pages with hundreds of illustrations, many in full color. There are 35,000 words of authoritative text and a complete index.

Thought and emotion, mental health and sickness, creativity and retardation.

The subject of man's mind has fascinated him throughout the ages. For more reasons than mere self-interest, man has strived to learn about the mind's complexities for a variety of reasons—some salutary, many evil.

In a generation that has witnessed the power of thought-control, the healing effects of psychotherapy, and the undreamed-of results of drugs and computers, the source of these discoveries remains an

endlessly fascinating object. It is, of course, the mind of man.

In this introductory volume of the LIFE SCIENCE LIBRARY, you will learn about the minds of others, and gain insight into your own. Not only you, yourself, will be thrilled by the experience, but your entire family will profit from it for years to come.

The Mind is a map for a journey through the mind of man . . . a chapter-by-chapter description of one of the most interesting, informative books you will ever read follows in this brochure.

And you may read *The Mind* free, in your home, for ten days.

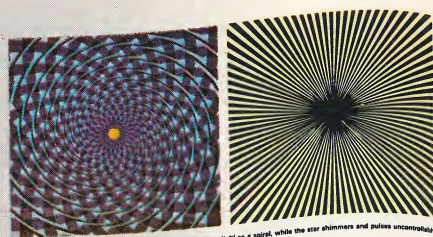
strange demons that haunt his mind. His repressed ideas are brought forth in the form of obscure symbols. He uses vivid, contrasting colors to portray his intense emotions, and may try to paint canyons with tiles, afraid that he has failed to convey his turbulent fantasies. In each respect this art reflects illness, although the results can be exquisite. For example, distortion of the human figure, reflecting the patient's disturbed human relations, can give paintings the look of enchanting primitive art.

The Beginnings of Psychoanalysis



AN EARLY COLLABORATOR
Sigmund Freud developed with Josef Breuer (right) the concept of "catharsis" as a means of relieving mental distress. Freud's early work on the mind, however, was largely his own.

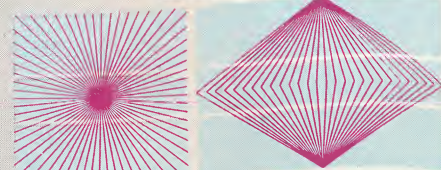
By the 1880s, the treatment of mental illness in the civilized world had benefited from a burgeoning of scientific knowledge, and had passed into the hands of medical specialists—psychiatrists and neurologists. But even progressive practitioners, puzzled by cases of apparent physical disorder, believed "degeneration" of the nervous system might be a cause. In 1885, in preparation for private practice as a neurologist, Freud went to Paris to study under the eminent Dr. Jean-Martin Charcot (opposite). There he witnessed Charcot's extraordinary experiments in hypnosis. The discovery that symptoms of mental illness might be cured and relieved by the power of "ideas" alone finally convinced Freud to the study of the mind. He wrote of Charcot to his fiancée, "No other human being has affected me in such a way."



Even when the viewer knows better, he sees the most of circles (left) as a spiral, while the star shimmers and pulses uncontrollably.

Wrongheaded Sights

Man is determined to see things his own way. His way is sometimes imaginative, sometimes logical—and sometimes wrong. For example, when many similar lines are crowded together, such as in the circles at the bottom of the opposite page and the star at the top right above, he perceives an illusory motion. The arrangement of the solid circles, piled above the dotted circles, leads to a logical, if incorrect, interpretation: the one surrounded by his circles appears smaller than the one surrounded by little circles.



The pair of white lines at left appear to be converging; those at right to be slightly diverging. Actually both pairs are parallel.

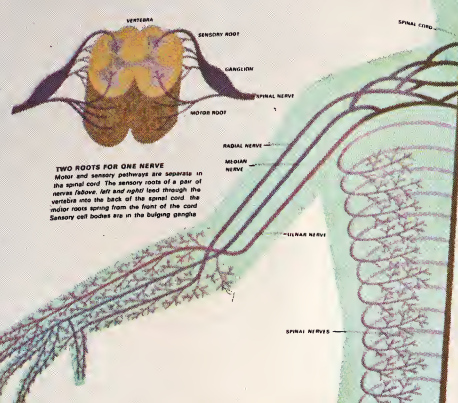
By revolutionizing man's view of himself, Freud was many decades ahead of his contemporaries—yet his own life was a serene example of the 19th Century family man.

No longer do we assume that our perception is an absolute ceives—he interprets his environment through experience at the tricks simple color and line arrangements can play on y

The complex activity of man's nervous system as he plays concise, four-color drawings and photographs. Below you system at once in a special, fold out spread.

THE SPINAL NERVES

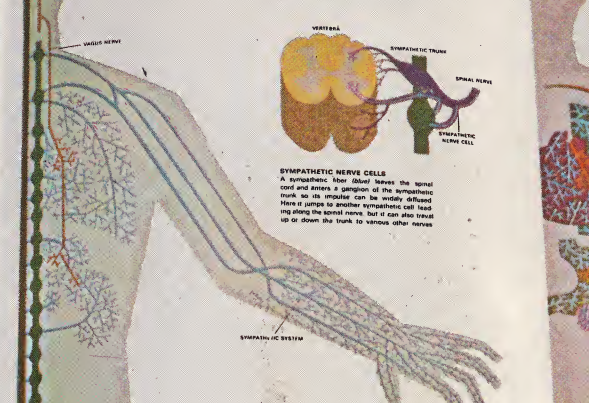
The human torso, the arms and the legs are served by 31 pairs of great spinal nerves rooted to either side of the spinal cord, which branch out to serve the subdivisions of the body. The nerves are made up of many fibers, some of which carry sensory impulses, which follow the same route in reverse. Each of the nerves following the spinal cord, down the spinal cord, out a spinal nerve to a network near the shoulder, where directions for each finger would be sent along the appropriate subsidiary nerve. Some would enter the arm's radial nerve, some its median nerve and some its ulnar nerve. Other fibers in these nerves carry sensory impulses, which follow the same route in reverse.



TWO ROOTS FOR ONE NERVE
Motor and sensory pathways are separate in the spinal cord. The sensory roots of a pair of nerves follow the left and right lead through the vertebrae into the back of the spinal cord. The motor roots spring from the front of the cord. Sensory cell bodies are in the bulging ganglia.

THE AUTONOMIC NERVES

Besides the network of motor nerve cells that direct voluntary activity, an altogether different network of motor nerve cells connects the brain with internal organs, the circulatory system and mucous membranes. This is called the autonomic system, because it works automatically, requiring no conscious commands. The paintings at left indicate two subsystems of nerves within the system: the sympathetic and the parasympathetic. The sympathetic (blue) is more pervasive, and has two chains of ganglia, called sympathetic trunks, on either side of the spine (green). The large vagus nerve (orange) belongs to the parasympathetic system. It has endings in the throat that control swallowing, and other endings in the major organs that are shown in the paintings on the following page.



SYMPATHETIC NERVE CELLS
A sympathetic fiber (blue) leaves the spinal cord and enters a ganglion of the sympathetic trunk on its right side. Here it can be easily deflected into one of the sympathetic cell bodies. It can also travel up or down the trunk to various other nerves.

CHAPTER ONE: The Elusive Mind of Man

The earliest concepts of the mind and how philosophers and physiologists sought to unlock its secrets. The dark world of the unconscious, dreams and sex. Thinking, consciousness, memory, learning. The full spectrum of mental activity. Picture Essay: *The Instrument of the Nervous System*.

CHAPTER TWO: Mechanisms of Mentality

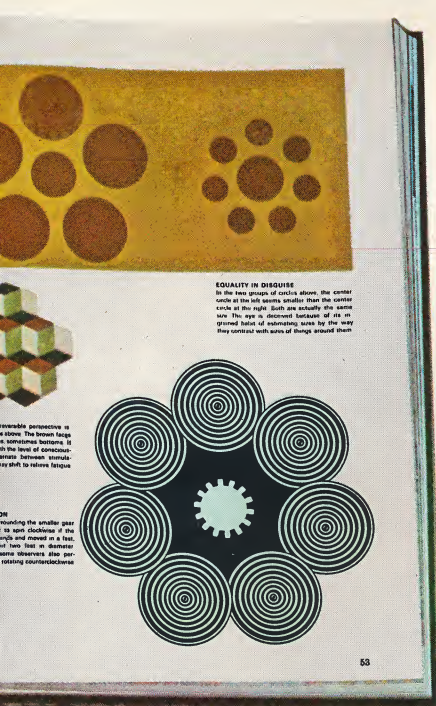
Galen's discovery of the cranial nerves through which "animal spirits" flowed. Descartes' discovery of reflex action. Functions of the nerve cell, spinal cord and nervous system. And the still unknowns. Picture Essay: *The Intricate Art of Perception*.

CHAPTER THREE: The Mind Under Stress and in Disarray

Explanations for lunacy or "moon-madness." Demons that inhabit the minds of the mad. Mental illness—organic or otherwise? Neurosis and psychosis—causes, symptoms and treatment. And much more. Picture Essay: *Mental Illness, from Demonology to Therapy*.

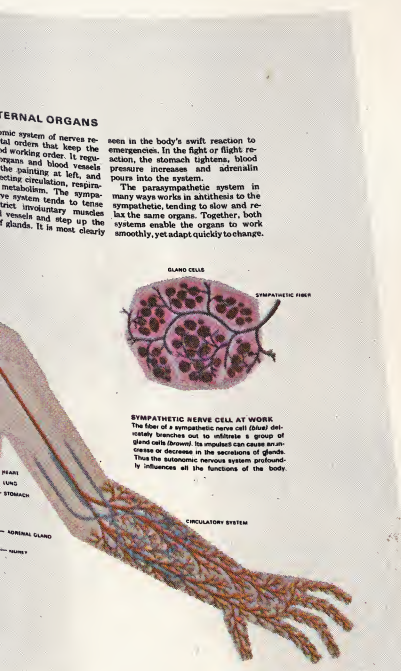
CHAPTER FOUR: Psychoanalysis: Delving into the Unconscious

Sigmund Freud, the founder of psychoanalysis. The mind's two levels: conscious and unconscious. Three-part structure of the personality—id, ego, super-ego. Dream interpretation, "free association," transference. Picture Essay: *A Photographic Album from the Life of Sigmund Freud*.



recorder of stimuli. Man not only per-
d needs. The above drawings illustrate
our eye.

the piano is organized into a series of
see the complete peripheral nervous



CHAPTER FIVE: How and What Do We Learn?

Demands on our capacities to learn. How do we learn? "Condition-
ing" theory of Pavlov. Thorndike and learning as problem solving.
Skinner and teaching machines. Picture Essays: *Patterns of Learning*,
Levels of Ability, including intelligence tests.

CHAPTER SIX: Yardsticks for Human Intelligence

Concepts of intelligence. Reasoning and abstract thinking. The de-
velopment of I.Q. tests. Changing intelligence with education. Measur-
ing intelligence by analyzing creativity. Picture Essay: *Strange Land-
scapes from the Realm of Mental Illness*.



In 1904 the first successful test to measure intelligence was devised. Since then, many tests have been
developed . . . most emphasize relationships between numbers, words and shapes rather than how
much we know. Above, some past geniuses are evaluated according to their estimated I.Q.

Man has used drugs and alcohol to change his moods for centuries. Hypnosis, however, is a more
recent manipulator of behavior. Below you see the beginning of a picture essay on its powers . . .
from the power of suggestion to brain washing.

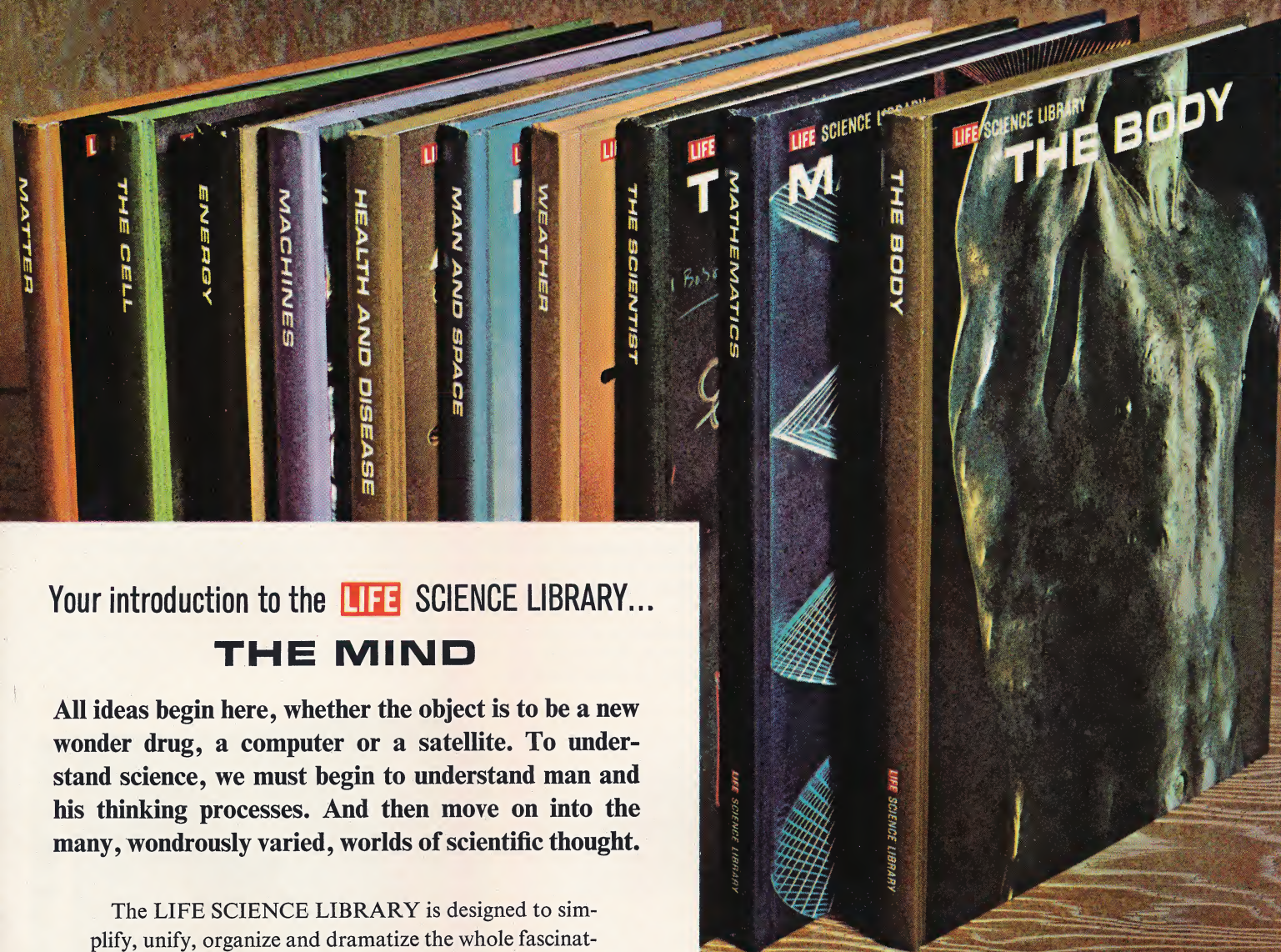


CHAPTER SEVEN: Manipulations of Mentality

The "mood-changers"—alcohol, tranquilizers, anti-depressants. Al-
coholism—disease or symptom of mental illness? Drugs that gladden,
sadden, alter time and change perception. LSD and schizophrenics.
Cats that fear mice. Picture Essay: *Hypnosis, Drugs and "Thought Control."*

CHAPTER EIGHT: Mind and the Future of Man

Discovering what consciousness, pain and pleasure are. Origins of
our emotions and thought processes. Machines that simulate aspects
of human behavior. Electrical currents that exist in the brain. Picture
Essay: *Exploring Inside the Brain*.



Your introduction to the **LIFE** SCIENCE LIBRARY...

THE MIND

All ideas begin here, whether the object is to be a new wonder drug, a computer or a satellite. To understand science, we must begin to understand man and his thinking processes. And then move on into the many, wondrously varied, worlds of scientific thought.

The LIFE SCIENCE LIBRARY is designed to simplify, unify, organize and dramatize the whole fascinating world of science. Written by outstanding authorities, the Library will enlarge your knowledge of science . . . show you how different scientific fields relate to one another . . . and clarify concepts which may have puzzled you, from discoveries in viruses and genetics, to space technology and how the different systems in the human body function.

Each hardbound book comprises about 200 pages, 35,000 words of text, and hundreds of drawings, photographs, charts and diagrams, many of them in full color. Size is 8½ by 11 inches. The Library is beautifully matched and will bring to your family an ever-ready source of lively and concise information on virtually every scientific subject. The Library is especially worthwhile for students because it provides both the background and supplementary material they need for help in biology, mathematics, chemistry, physics, psychology and astronomy.

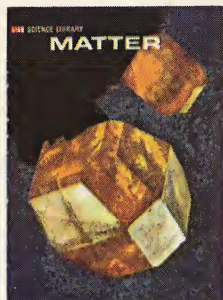
SEND NO MONEY: Just Mail the Reservation Card to Receive Your Copy of *The Mind*

To introduce you to the LIFE SCIENCE LIBRARY, a copy of *The Mind* has already been reserved in your name. The enclosed reservation card will bring it to your family for a *free ten-day reading and examination*. There is no obligation to buy; you may return it within 10 days and pay nothing. If you retain the volume, the price is very low. Other books in the Library will be sent to you, one every two months, for ten-day free appraisal. You may cancel this free-examination privilege at any time, simply by writing us. Please send the card now—without money—for a copy of *The Mind*.

AMONG OTHER TITLES IN THE WIDELY ACCLAIMED SERIES:

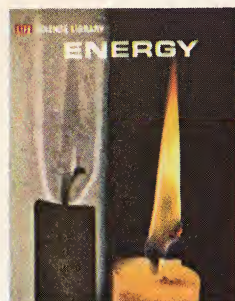
MATTER

Matter is the basic stuff of the universe. It is fuel that powers rockets; liquid so cold that it climbs out of a glass; coal that turns into diamonds. Matter is metal from the earth and the sea and the atomic bomb and the hydrogen bomb. This volume presents the nature, properties, and evolution of matter in word-and-picture terms you will read and absorb with eagerness.



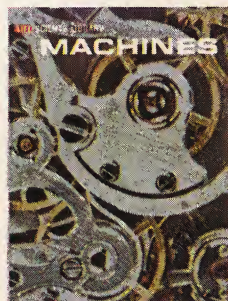
ENERGY

Energy is the capacity to do work. Energy runs everything. A falling stone has energy. Is it the same energy as that of a soaring space ship? The sun and the rainbow are aspects of energy and so is heat and sound and electricity and magnetism. In this book you see the uses of energy, its applications to everyday life, the limitless sources of energy we will tap in the future.



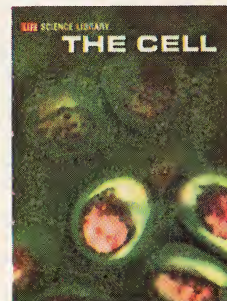
MACHINES

Anything with moving parts is a machine, from a lever to a locomotive. The first machines were simple ways to make work easier. Today, machines govern business and the kitchen, war and travel: they pervade our lives. LIFE's book traces the machine from the discovery of fire to nuclear power, from the invention of the wheel to the steam engine and the building of rockets.



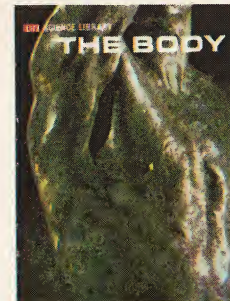
THE CELL

The cell is the basic entity of life. By itself it functions fully; joined with other cells it becomes part of a system—a plant or a body. How cells feed, reproduce and defend themselves is a study basic to prolonging life and halting disease. You go back to the origin of life and see how man's evolution and search for a better life derive from an understanding of the cell.



THE BODY

In this volume you explore the marvels of the human form: its organs and organ systems, its skeleton and senses, its chemistry and its coordination. You see how the body works; why we get sick and why we get well; what makes us young and old. Just what is basal metabolism? How can we best understand the miracle of reproduction—the mysteries of heredity?



Consulting Editors for the LIFE SCIENCE LIBRARY

DR. RENE DUBOS

*Member and Professor,
The Rockefeller University*

Dr. Dubos is an internationally famous biologist and the discoverer of the antibiotic tyrothricin.

DR. HENRY MARGENAU

*Professor of Physics and Natural
Philosophy, Yale University*

Dr. Margenau, a noted physicist and teacher, is an editor of American Journal of Science.

C. P. SNOW

*Parliamentary Secretary,
Ministry of Technology, London*

Lord Snow, a physicist and author, is well known for his views on the role of science in society.

RESERVE YOUR COPY OF THE MIND NOW—FOR 10 DAYS FREE EXAMINATION

The Mind is such a strikingly different book that no description can really do it full justice. This is why we want you to have it for ten days—entirely without cost or obligation to buy it. The enclosed card is valuable—to you, and to you alone. We suggest, therefore, that you initial the order card and drop it in the mail today or use the adjacent coupon:

LIFE Science Library

Time-Life Books, Time & Life Building, Chicago, Illinois 60611.

At no cost, with no obligation to purchase, please send *The Mind* for my free examination, and reserve in my name the privilege of receiving additional titles in the LIFE SCIENCE LIBRARY (one every two months).

If I decide I do not want *The Mind*, I will return it within ten days and owe nothing. (In that case no future volumes will be shipped.) Otherwise, I will send you \$3.95 (plus postage and handling). I may cancel my subscription at any time.

Name _____

Address _____

City _____ State _____ Zip Code _____

3910

PERMIT NO. 22
CHICAGO, ILL.

NO POSTAGE STAMP NECESSARY IF MAILED IN UNITED STATES

POSTAGE WILL BE PAID BY

TIME and LIFE Building

Chicago, Illinois 60611



Reservation Form for

THE MIND

Introductory Volume of the

LIFE SCIENCE LIBRARY



Reservation Form for
THE MIND
 Introductory Volume of the
LIFE SCIENCE LIBRARY

☐ YES . . . I WOULD LIKE TO EXAMINE THE MIND.

Please send it to me for ten days' free examination and enter a trial subscription to the LIFE SCIENCE LIBRARY. If I decide to keep the book, I will pay only \$3.95 (plus shipping and handling). You may then confirm my reservation to receive future volumes in the LIBRARY, sent a volume at a time at 2-month intervals, at the same price of \$3.95. These volumes are also to be sent to me on approval, and I may return any volume within ten days after receiving it, and may cancel my reservation at any time simply by notifying you. If, after examining this first book, I do not choose to keep it or become a subscriber, I may return the book within ten days, thereby cancelling my reservation for future volumes, and I am under no further obligation.

A3901
 TED NELSON
 BOX 1546
 POUGHKEPSIE NY 12603

Please Initial Here _____

SCHOOLS and LIBRARIES: Please address your order to Silver Burdett Company, Morristown, New Jersey.